

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	)	
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David A. Monroe	)	
	)	Group Art Unit: 2621
Serial No. 09/374,136	)	
	)	
Filed: 08/10/99	)	Examiner: Kanji Patel
	)	
METHOD AND APPARATUS FOR SENDING	)	
AND RECEIVING FACSIMILE TRANSMISSION)	)	Docket No. 069834.000020
OVER A NON-TELEPHONIC TRANSMISSION )	)	
SYSTEM	)	

**CLAIMS AS AMENDED CLEAN VERSION**

2. A facsimile transmitting/receiving system comprising a standard facsimile machine and a computer based system in communication with the standard facsimile machine, the system comprising:

- a. an interface positioned intermediately of and in communication with both the facsimile machine and the computer;
- b. a line for receiving and sending facsimile signals in communication with the interface for selectively communicating directly with the facsimile machine and the computer; and
- c. means for converting encoded documents to formats compatible with computer supported systems and with the facsimile machine;

wherein said means is further adapted for converting facsimile signals to a format for transmission over distributive communication networks and for converting network transmitted signals in a format for transmission over a facsimile transmission line.

3. The facsimile system of claim 2, wherein said interface further includes means for sending and receiving facsimile signals over a standard telephone line.

4. The facsimile system of claim 2, wherein said interface further includes means for sending and receiving facsimile signals between the computer and the facsimile machine.

5. The facsimile system of claim 3, wherein said interface further includes means for sending and receiving facsimile signals between the facsimile machine and the telephone line.

6. The facsimile system of claim 3, wherein said interface further includes means for sending and receiving facsimile signals between the computer and the telephone line.

10. A method for transmitting a facsimile signal from a local station to a remote station via a distributive communication network comprising the steps of:

- a. generating a facsimile signal utilizing a standard facsimile machine at the local station;
- b. converting the signal to a format compatible with the network; and
- c. transmitting the converted signal via the network to a remote station;

wherein both the local station and the remote station are facsimile machines, and further comprising the steps of:

- a. receiving the converted, transmitted signal at the remote station;
- b. reconverting the transmitted signal to a facsimile format; and
- c. receiving the reconverted, transmitted signal at a standard facsimile machine.

11. A method for transmitting a facsimile signal from a local station to a remote station via a distributive communication network comprising the steps of:

- a. generating a facsimile signal at the local station;
- b. converting the signal to a format compatible with the network; and
- c. transmitting the converted signal via the network to a remote station.

17. An interface for use in combination with a facsimile receiving/sending station and an Internet interface, comprising means for converting a signal to be transmitted/received by the facsimile station to/from a format compatible with the network.

18. The network of claim 17, further comprising a telephone line in communication with the interface, and means for selective directing a facsimile signal between the telephone line, the network interface and the facsimile receiving/sending station.

19. The network of claim 18, wherein said network interface comprises a personal computer.

20. A facsimile transmitting/receiving system comprising a sending computer, a computer network, and a receiving computer

wherein the sending computer is comprised of an input device connected to a first controller, in turn connected to a transmitter and the receiving computer is comprised of a receiver connected to a second controller, in turn connected to an output device;

wherein the sending computer is connected to the computer network, which is in turn connected to the receiving computer; and

wherein the input device is capable of scanning a first document and providing a standard facsimile signal of said document to the first controller, the first controller capable of converting the standard facsimile signal to a computer data signal and forwarding said computer data signal to the transmitter, the transmitter capable of transmitting said computer data signal to the receiver, the receiver capable of forwarding said computer data signal to the second controller, the second controller capable of rendering a second document, which is corresponding to the first document, to the output device based upon the computer data signal.

21. The facsimile transmitting/receiving system of claim 20 wherein the input device is an off-the-shelf facsimile machine.

22. The facsimile transmitting/receiving system of claim 20 wherein the second controller is capable of converting the computer data signal to a second standard facsimile signal and forwarding said second standard facsimile signal to the output device; and the output device capable of generating the second document on paper.

23. The facsimile transmitting/receiving system of claim 22 wherein the output device is an off-the-shelf facsimile machine.

24. The facsimile transmitting/receiving system of claim 22 wherein the output device is a printer.

25. The facsimile transmitting/receiving system of claim 20 wherein the computer network is a TCP/IP network.

26. A facsimile transmitting/receiving system comprising a sending computer, a computer network, and a receiving computer

wherein the sending computer is comprised of a first controller connected to a transmitter and the receiving computer is comprised of a receiver connected to a second controller, in turn connected to an output device;

wherein the sending computer is connected to the computer network, which is in turn connected to the receiving computer; and

wherein the first computer has a computer data signal and forwards said computer data signal to the transmitter, the transmitter capable of transmitting said computer data signal to the receiver, the receiver capable of forwarding said computer data signal to the second controller, the second controller is capable of converting the computer data signal to a standard facsimile signal and forwarding said standard facsimile signal to the output device; and

the output device capable of generating the second document on paper.

27. The facsimile transmitting/receiving system of claim 26 wherein the output device is an off-the-shelf facsimile machine.

28. The facsimile transmitting/receiving system of claim 26 wherein the computer network is a TCP/IP network.

29. A method of transmitting a facsimile copy of a document from a first location to a second location comprising the steps of:

scanning a first document into an input device at the first location to generate a standard facsimile signal;

forwarding the standard facsimile signal to a first processor at the first location;

converting the standard facsimile signal to a computer data signal at the first location;

transmitting the computer data signal to a second processor at the second location; and

rendering a second document substantially similar to the first document at the second location.

30. The method of claim 29 wherein the transmitting is accomplished via a computer network.

31. The method of claim 30 where the computer network is a TCP/IP network.

32. The method of claim 29 wherein the input device is an off-the-shelf facsimile machine.

33. The method of claim 30 wherein the input device is an off-the-shelf facsimile machine.

34. The method of claim 29 further comprising the steps of:

converting the computer data signal to a second standard facsimile signal at the second location; and

forwarding the second standard facsimile signal to an output device at the second location.

35. The method of claim 34 wherein the output device is an off-the-shelf facsimile machine.

36. A method of transmitting a facsimile copy of a document from a first location to a second location comprising the steps of:

creating a computer data signal representing a first document at the first location;

transmitting a computer data signal from a first processor at the first location to a second processor at the second location;

converting the computer data signal to a standard facsimile signal at the second location; and

forwarding the second standard facsimile signal to an output device at the second location.

rendering a second document corresponding to the first document at the second location;

37. The method of claim 36 wherein the output device is an off-the-shelf facsimile machine.

38. A method of transmitting a facsimile copy of a document from a first location to a second location where a second document is rendered which is corresponding to the first document comprising the steps of:

scanning a first document into an input device at the first location to generate a standard facsimile signal;

forwarding the standard facsimile signal to a first processor at the first location;

converting the standard facsimile signal to a computer data signal at the first location; and

initiating transmission of the computer data signal to a second processor at the second location.

39. The method of claim 38 wherein the transmitting is initiated via a computer network.

40. The method of claim 39 where the computer network is a TCP/IP network.

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41. The method of claim 38 wherein the input device is an off-the-shelf facsimile machine.

42-43. A method of transmitting a facsimile copy of a document from a first location to a second location where a computer data signal representing the document has been transmitted from a first processor at the first location to a second processor at the second location comprising the steps of:

receiving transmission of a computer data signal from a first processor at the first location to the second processor at the second location;

converting the computer data signal to a standard facsimile signal at the second location; and forwarding the second standard facsimile signal to an output device at the second location.

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44. The method of claim 42 wherein the output device is an off-the-shelf facsimile machine.

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45. A computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

receiving a standard facsimile signal representing a first document from an input device at a first location;

converting the standard facsimile signal to a computer data signal; and

initiating transmission of the computer data signal to a second processor at a second location for creation of a second document at the second location which is corresponding to the first document.

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46. The computer readable medium of claim 44 wherein the input device is an off-the-shelf facsimile machine.

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47. A computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

receiving transmission of a computer data signal representing a first document from a first processor at a first location; and

converting the computer data signal to a standard facsimile signal; and

CS forwarding the standard facsimile signal to an output device to cause creation of a second document which is substantially similar to the first document.

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48. The computer readable medium of claim 47 wherein the output device is an off-the-shelf facsimile machine.

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**REPLACEMENT PARAGRAPHS AS AMENDED CLEAN VERSION**

Page 3, line 28, paragraph 9.

C6 Figs. 3A-3Q are a more detailed flow diagram of the interface in accordance with the subject invention.

Insert after page 3, line 30, paragraph 10.

C7 Fig. 5 is an alternative embodiment, similar to Fig. 3.

Page 3, line 32, paragraph 11.

C8 As shown in Fig. 1, the subject invention is utilized in combination with a standard computer based system such as, by way of example, the personal computer 10. As is typical, the computer 10 is connected to a modem 19, which may be either internal or external as shown. In a typical application, the modem may be used to connect the computer system to a distributive network such as the Internet, as indicated at 14 (Fig. 2.) The network may also be wired directly into the computer,

C8 as is the case with LAN based systems and the like. The significant point is that the computer is adapted for communicating data over a distributive network system. Also as is typical, the computer system may include any of a plurality of options, desired peripheral hardware components such as, by way of example, the laser printer 16 (Fig.2.)

Page 4, line 19, full paragraph 3, please amend to read as follows

C9 The data signal on line 20 may then be adapted for on-line transmission via the a distributive network such as the Internet 14 or for other computer based manipulation systems such as word processing and the like. The software also converts signals incoming directly to the computer via the Internet, a scanner (not shown), the keyboard 28, or other input device into a facsimile compatible signal for transmission over cable 20 and through the interface switch 18 to the fax machine 26 and/or the telephone line 22 as a fax signal.

Page 4, line 25, full paragraph 4, please amend to read as follows

C10 Fig. 2 is a diagrammatic view showing the switching combinations made possible by the interface of the subject invention. In graphic 30 Fig 3A, the fax signal transmitted to/from the computer via cable 20 is sent/received directly over the telephone line 22 in communication with a remote facsimile receiver. In graphic 32 Fig. 3B, the same signal is sent/received by a local facsimile receiver 26 (Fig. 1) via line 24. In graphic 34 Fig. 3D, the local facsimile machine is in a normal operating mode and communicates directly with a telephone line 22.

Page 4, line 31, full paragraph 5, please amend to read as follows

C11 A more detailed diagram of the interface 18 is shown in Fig. 4. The telephone line 22 is in direct communication with a pair of switches 40, 42, provided in the interface 18. When switch 40 is closed, the telephone line is connected directly to the computer via cable 20. When switch 42 is

C11 closed, the telephone line is connected directly to the local facsimile machine via line 24. This line is also connected to a "ring" generator 44 to signal an incoming fax. The ring generator provides an activation signal for initiating the facsimile machine when a standard incoming telephone "ring" signal is not present. The ring generator 44 communicates directly with the computer via cable 20 directly with the local facsimile machine 26 via the interface 18. A parallel switch 48 is also present to selectively initiate the ring generator. Where desired, cable 20 can also be connected directly to the modem and through a controller 50 to a switch 52 and to the ring generator 44 to signal an incoming fax directly from the network.

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Page 5, line 14, full paragraph 2, please amend to read as follows

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C12 The telephone hook-up 22 shown in Fig. 3A is used when a remote facsimile machine is communicating either directly with the facsimile machine 26 in the normal manner, or with the computer 10 for transmission over the selected distributive network.

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